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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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FISH & RICHARDSON P.C. 3300 DAIN RAUSCHER PLAZA MINNEAPOLIS, MN 55402			EXAMINER FOULADI SEMNANI, FARANAK	
			ART UNIT	PAPER NUMBER
			2672	
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Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/782,597

Applicant(s)

MCCULLY, NATHANIEL M.

Examiner

Faranak Fouladi

Art Unit

2672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 February 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-27 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-27 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 12 February 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date <u>#7/ 01/04</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This action is responsive to communications: application, filed on 02/12/01 and IDS filed on 01/09/04.
2. Claims 1-27 are pending in the case, with claims 1, 14 and 27 being independent.
3. The present title of the application is "**METHOD FOR CALCULATING CJK EMBOXES IN FONTS**" (as originally filed).

Drawings

4. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: "S36". A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Claim Rejections - 35 USC § 112



The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

5. Claims 1-27 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

I. The subject matter "setting a coordination line" has not been described in the specification. How does a coordination line get set?

II. The subject matter "comparing the plurality of characters to be typeset on the text line with at least one preselected reference character belonging to the same font" has not been described in the specification.

Specification page 2 line 25-26 states "each character to be typeset on the text line is compared with at least one preselected reference character belonging to the same font", there is no description on what is compared between the two.

Specification page 3 lines 6-10 states "the comparison of each of the plurality of characters may include determining a glyph bounding box for the reference character", there is no description regarding comparison and no description on what is compared between the two.

III. The subject matter "determining a coordination point for each of the plurality of characters in their said respective embox based on the result of the comparison" has not been described.

Specification page 4 lines 9-12 states "determining a coordination point by comparing each of the plurality of said characters with at least one preselected reference character belonging to the same font", there is no description on what is being compared between said character and a preselected reference character and how is it used for coordination point determination.

IV. The subject matter "wherein said coordination point is an intersection point with the top, middle, or bottom of said embox, or with said bounding box" has not been described.

Specification page 4 line 8-10 states "coordination point may be an intersection point with the top, middle, or bottom of the embox, or with said bounding box" and specification page 8 line 18-21 states "a bounding box is a box comprising a pair of horizontal lines and a pair of vertical lines surrounding character C1's glyph. The bounding box is usually slightly smaller than character C1's embox and housed inside the embox", there is no description on how an embox and bounding box intersect and it has not been shown in any of the Figs.



The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. The following claims recite the limitations with insufficient antecedent basis for them in those claims.
 - a. Claim 1 recites the limitation "the same font" in line 9.
 - b. Claim 2 recites the limitation "said at least one reference character" in line 2.

- c. Claim 3 recites the limitation "said at least one character " in line 1.
- d. Claim 4 recites the limitation "said reference character" in line 1.
- e. Claim 6 recites the limitation "said reference character" in line 3, "said embbox" in line 4 and 5.
- f. Claim 7 recites the limitation "the largest character" in line 1, "the line height" in line 4.
- g. Claim 9 recites the limitation "said reference character" in line 3, "the average value" in line 4.
- h. Claim 11 recites the limitation "said average value" in line 8.
- i. Claim 12 recites the limitation "said at least one reference character" in line 1.
- j. Claim 14 recites the limitation "the text line" in line 3, "the same font" in line 10.
- k. Claim 15 recites the limitation "said at least one reference character" in line 2.
- l. Claim 16 recites the limitation "said at least one character" in line 1.
- m. Claim 17 recites the limitation "said reference character" in line 1.
- n. Claim 19 recites the limitation "said reference character" in line 3.
- o. Claim 21 recites the limitation "the largest" in line 2, "the line height" in line 4.
- p. Claim 22 recites the limitation "said reference character" in line 3, "the average value" in line 4.
- q. Claim 23 recites the limitation "the sum" in line 2.
- r. Claim 24 recites the limitation "said reference character" in line 3, "said average value" in line 8.

- s. Claim 25 recites the limitation "said at least one reference character" in line 1.
- t. Claim 27 recites the limitation "the same font" in line 12.

There is insufficient antecedent basis for these limitations in the aforementioned claims.

◆ The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

- 7. Claims 6, 7, 9, 11, 19, 20, 22 and 24 rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The terms "said embox" and "said bounding box" used in aforementioned claims render those claims indefinite. It is not clear if "said embox" and "said bounding box" belong to "at least one preselected reference character" or they belong to "each of the plurality of characters".

Claim Rejections - 35 USC § 102

◆ The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

8. Claims 1-27 are rejected under 35 U.S.C. 102(b) as being anticipated by Masahiko Muramatsu Japanese publication 06-020026 (Muramatsu).
9. Regarding independent claim 1, "a control method for typesetting a text line, comprising:
 - setting a coordination line for the text line to coordinate a plurality of characters for typesetting the text line (Muramatsu disclose in paragraph 0009);
 - determining dimensions of each of the plurality of characters to be typeset on the text line (Muramatsu disclose in paragraph 0019);
 - determining an embox for each of the plurality of characters, the vertical and horizontal size of each embox being said determined character dimensions (Muramatsu disclose in paragraph 0019),
 - comparing the plurality of characters to be typeset on the text line with at least one preselected reference character belonging to the same font, and
 - determining a coordination point for each of the plurality of characters in their said respective embox based on the result of the comparison (Muramatsu disclose in paragraph 0009, 0102); and
 - coordinating said coordination point for each of the plurality of characters with said coordination line to typeset said plurality of characters on the text line." Muramatsu disclose in paragraph 0089, 0138 and Figs. 10-17.

Muramatsu disclose in his invention a method to align glyphs of different scripts and sizes in a line of text (Fig. 4, 11a,b and 12), whether the glyphs are in the same font or in different fonts with respect to a created character pattern. For example in order to change a character arrangement shown in Fig. 11(a) into a character arrangement shown in Fig. 12, the position of the created character pattern is modified by using a reference character (standard typeface) dimensions, embox and bounding box information. Muramatsu disclose how to determine an embox of the character in paragraph number 0111 "In Fig. 14, MX is a vertical length of a previously set region (body size) to be registered with a character, and MY indicates a horizontal length of the region (body size)".

10. Regarding dependent claim 2, "the method of claim 1, wherein said dimensions are point dimensions and said at least one reference character has the same point dimension as each of the plurality of characters to undergo said coordination." Muramatsu disclose in paragraphs 0017, 0102 and 0104.

11. Regarding dependent claim 3, "the method of claim 2, wherein said at least one character is a CJK font character." Muramatsu disclose in paragraph 0102. Muramatsu disclose reading a character pattern from a font file by a JIS code, and, thus, a font to be treated is a Japanese font, which is one of the CJK font.

12. Regarding dependent claim 4, "the method of claim 1, wherein said reference character is a European-language en uppercase letter having a cap height." Muramatsu disclose in paragraphs 0031 and 0040.
13. Regarding dependent claim 5, "the method of claim 4, wherein said reference character is an en H or an en X." Muramatsu disclose in paragraph 0040.
14. Regarding dependent claim 6, "the method of claim 1, wherein comparing each of the plurality of characters comprises: determining a glyph bounding box for said reference character; centrally positioning said bounding box in said embox; and determining the coordination point of said embox." Muramatsu disclose in paragraph 0033.
15. Regarding dependent claim 7, "the method of claim 6, wherein said coordination point is an intersection point with the top, middle or bottom of said embox, or with said bounding box." Muramatsu disclose in paragraph 0033.
16. Regarding dependent claim 8, "the method of claim 1, further comprising: finding the largest character having the largest point dimension among said plurality of characters; setting the line height to be the height of said largest character; and centrally positioning said plurality of characters that has been coordinated with a coordination line within said line height." Muramatsu disclose in paragraphs 0038-0053.
17. Regarding dependent claim 9, "the method of claim 1, wherein comparing each of the plurality of characters comprises: determining the glyph bounding box for said reference character; determining the average value for the top, bottom, left,

and right differences between said embox and said bounding box; determining an ideographic character face box located inside and separated from said embox edges by exactly said average value; and determining said coordination point based on said ideographic character face box." Muramatsu disclose in paragraphs 0110-0135.

18. Regarding dependent claim 10, "the method of claim 9, wherein N ($N \geq 2$) reference characters are present, and determining the average value comprises dividing the sum of the top, bottom, left, and right differences obtained for the N reference characters by $4N$ to determine said average value." Muramatsu disclose in paragraphs 0110-0135.

19. Regarding dependent claim 11, "the method of claim 1, wherein comparing each of the plurality of characters comprises: determining a glyph bounding box for said reference character; determining a first average value for the top and bottom difference between said embox and said bounding box; determining a second average value for the left and right difference; determining an ideographic character face box located inside and separated from said embox edges by exactly said average value; and determining said coordination point based on said ideographic character face box." Muramatsu disclose in paragraphs 0110-0135.

20. Regarding dependent claim 12, "the method of claim 9, wherein the said at least one reference character has a glyph whose shape is close to square." Muramatsu disclose in Figs. 15 and 16.

21. Regarding dependent 13, "the method of claim 12, wherein said at least one reference character include the Japanese ideographs "utsu" and "naga.""

Although Muramatsu does not explicitly disclose having at least one reference character as the Japanese ideographs "utsu" and "naga." but to set one reference character as the Japanese ideographs "utsu" and "naga." would be a matter of design choice.

22. Claims 14-26 recite a computer program product, stored on a machine-readable medium storing instructions operable to cause a programmable processor for executing the method of claims 1-13. Having a medium configured to store or transport computer readable code in a computer system is inherent. For example compact disc has been included and used in the computer systems since 1990s or magnetic data storage devices have been used since 1980s.

23. Claim 27 recites the system for performing the method of claims 1-13; therefore it similar in scope to claim 1 and therefore is rejected under the same rationale.

Conclusion

24. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892 form.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Faranak Fouladi** whose telephone number is **703-305-3223**. The examiner can normally be reached on Mon-Fri from 8:00-4:30.

Art Unit: 2672

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Michael Razavi** can be reach at **703-305-4713**.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks


Washington, DC. 20231

Or faxed to: 703-872-9306 (for Technology Center 2600 only)

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, sixth-floor (Receptionist).

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is 703-306-0377.

Faranak Fouladi-Semnani
Patent Examiner
Art Unit 2672



MICHAEL RAZAVI
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